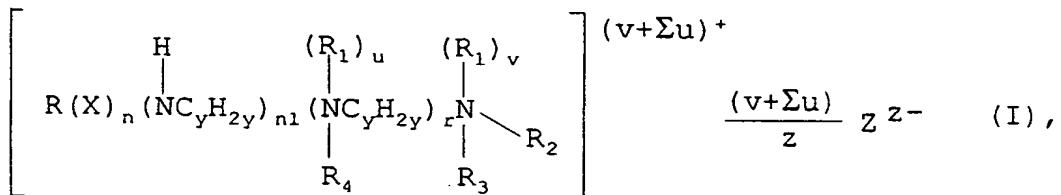


C L A I M S

1. Use of a quaternary ammonium glycoside surfactant containing at least one hydrocarbon group with 6-24 carbon atoms and at least one quaternary ammonium group where at least one substituent is an alkyleneoxy containing group which is connected to a saccharide residue by a glycosidic bond, as an adjuvant for pesticides and fertilisers.
- 5
2. Use of a quaternary ammonium glycoside surfactant according to claim 1, where the substituent has the formula $(AO)_s(G)_p$, where AO is an alkyleneoxy group with 2-4 carbon atoms, G is a saccharide residue, p is a number from 1 to 10 and s is a number from 1-15.
- 10
3. Use according to claim 1 or 2 of a quaternary ammonium glycoside surfactant, where the surfactant has the formula
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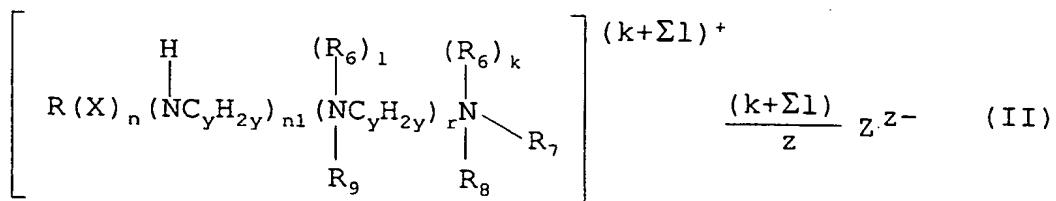
where R is an aliphatic group with 6-24 carbon atoms; R_1 is an aliphatic group with 1-4 carbon atoms or $(AO)_s(G)_p$; R_2 , R_3 and R_4 independently are a group $(AO)_s(G)_p$, an aliphatic group with 1-24 carbon atoms or a hydroxyalkyl group with 2-4 carbon atoms; AO is an alkyleneoxy group with 2-4 carbon atoms; s is 0-15 and $\Sigma s = 1-30$; G is a saccharide residue which is connected to the rest of the molecule by a glycosidic bond and p (the degree of polymerisation) is 0-10; $\Sigma p = 1-20$; r = 0-3; y = 2-3; X = CO or $COO(AO)_t(C_qH_{2q})$ or $O(AO)_t(C_qH_{2q})$; n = 0 or 1; n_1 is 0 except when X is CO, then n_1

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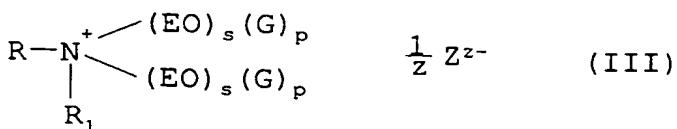
is 1; q = 2-4; t = 0-4; u = 0 or 1 and v = 0 or 1, provided that the sum (v + Σ u) is 1-3; Z is an anion and z is the charge of the anion Z.

4. Use according to claim 3, where the quaternary ammonium glycoside surfactant is present in a mixture with a quaternary ammonium compound having the formula



10 where R_6 is independently an aliphatic group with 1-4 carbon atoms or $-\text{CH}_2\text{CH}_2\text{OH}$; R_7 , R_8 , and R_9 independently are a group $(\text{AO})_s$, an aliphatic group with 1-24 carbon atoms or a hydroxyalkyl group with 2-4 carbon atoms; $l = 0$ or 1 and $k = 0$ or 1, provided that the sum $(k + \sum l)$ is 1-3; and R, AO, s, X, n, n_1 , y, r, Z and z have the same meaning as in claim 3, in a weight ratio 1:3-9:1.

15 5. Use according to claim 3, where the quaternary ammonium glycoside surfactant has the formula

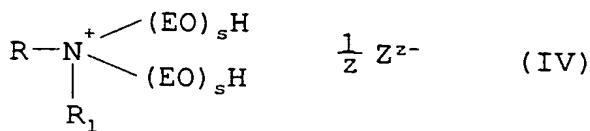


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where R is an aliphatic group with 6-24 carbon atoms; R_1 is an aliphatic group with 1-4 carbon atoms or the group $\text{C}_2\text{H}_4\text{O}(\text{G})_p$; G is a saccharide residue that is connected to the

polyethyleneoxy chain by a glycosidic bond and p (the degree of polymerisation) is 0-10; Σp is 1-15; EO is an ethyleneoxy group; s is 0-12; Σs is 2-15; Z and z have the meaning mentioned in formula I in claim 3.

- 5 6. Use according to claim 5, where the quaternary ammonium glycoside surfactant is present in a mixture with a quaternary ammonium compound having the formula



- 10 where R, R₁, EO, Z, z and s, have the same meaning as in formula III in claim 5, except that p in the group R₁ is 0, in a weight ratio 1:3-9:1.

7. Use according to claim 3, where X = O(AO)_t(C_qH_{2q}) where q is 3; n = 1; r = 0 and v = 1.

- 15 8. Use according to claim 7 where the quaternary ammonium glycoside is present in a mixture with a quaternary ammonium compound according to claim 4, where X = O(AO)_t(C_qH_{2q}) where q is 3; n = 1; r = 0; and k = 1, in a weight ratio 1:3-9:1.

9. Use according to claim 3, where n = 0; n₁ = 0; r = 1; y = 3; u = 1 and v = 1.

- 20 10. Use according to claim 9, where the quaternary ammonium glycoside is present in a mixture with a quaternary ammonium compound according to claim 4, where n = 0; n₁ = 0; r = 1; y = 3; k = 1 and l = 1, in a weight ratio 1:3-9:1.

- 25 11. Use according to any of the preceding claims 1-10 where the quaternary ammonium glycoside surfactant or the mixture is used as an adjuvant for a herbicide.

12. Use according to claim 11, where the herbicide is glyphosate or a salt thereof.

13. A formulation **characterised in that** it contains a pesticide or a fertiliser and an active amount of a quaternary ammonium glycoside surfactant as disclosed in any of claims 1-3, 5, 7 or 9.

5 14. A formulation in accordance with claim 13 **characterised in that** the amount of quaternary ammonium glycoside surfactant is between 20-200% by weight calculated on the amount of pesticide or fertiliser present in the formulation.

10 15. A pesticide formulation in accordance with claim 13, **characterised in that** it contains 0.01-99.9% by weight of a pesticide, 0-40% by weight of ammonium sulphate and an amount of 0.01-70% by weight of a mixture in accordance with claims 4, 6, 8 or 10.

15 16. A formulation according to claim 15, **characterised in that** the formulation is in liquid form and that the pesticide is glyphosate or a salt thereof, which is present in an amount of 0.02-70% by weight.

20 17. Use according to any of the preceding claims 1-10 where the quaternary ammonium glycoside surfactant or the mixture is used as an adjuvant for a fertiliser.

18. A fertiliser formulation in accordance with claim 13 **characterised in that** it contains 0.0001-99.9% by weight of a fertiliser and an amount of 0.0001-70% by weight of a mixture in accordance with claim 4, 6, 8 or 10.